Department of Toxic Substances Control

Edwin F. Lowry, Director
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Winston H. Hickox
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N00236.000392
ALAMEDA POINT
SSIC NO. 5090.3

April 22, 2002

Richard Weissenborn
Department of Navy
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

DRAFT REMEDIAL INVESTIGATION REPORT, OPERABLE UNIT 5, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Mr. Weissenborn:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document prepared by Neptune and Company, IT Corporation, and Environ and submitted by the Navy on December 21, 2001. Attached are a portion of our review comments. The remainder of the comments concerning baseline risk assessment will be available in early May. If you have any questions, please contact me at 510-540-3767.

Sincerely,

Marcia Y. Liao

Marcia Y. Liao, Ph.D., CHMM
Hazardous Substances Engineer
Office of Military Facilities

Enclosures

cc: see next page

cc: Michael McClelland, SWDiv
Andrew Dick, SWDiv
Steve Edde, Alameda Point
Anna-Marie Cook, EPA
Laurent Meillier, RWQCB
Elizabeth Johnson, City of Alameda
Michael John Torrey, RAB Co-Chair
Lea Loizos, Arc Ecology

DTSC COMMENTS
DRAFT REMEDIAL INVESTIGATION REPORT
OPERABLE UNIT 5
ALAMEDA POINT, ALAMEDA, CALIFORNIA

GENERAL COMMENTS

1. This report is entitled the Remedial Investigation (RI) report for Operable Unit 5 (OU-5) which consists of three parcels, 181, 182 and 183. However, the investigation results presented in this report pertain mostly to Parcel 181. It is unclear what the nature and extent of contamination is at Parcels 182 and 183 and what level of human health risk is associated with these two parcels. Please address this discrepancy.

2. The OU-5 has been investigated in 1994, 1995, 1998 and 1999 prior to the 2001 investigation. Please clarify if the earlier investigation data are incorporated in the OU-5 site characterization and risk calculation . If not, please provide the rationale.

3. Please clarify for the average readers that the **baseline** health risk assesses the risk associated with the site prior to any removal action, i.e. before the soil removal at Clover Park in October 2000 and the on-going excavation at the North Coast Guard Housing Area. Also, please make it clear that a separate health risk assessment showing the reduction of risk due to the soil removal will be presented later as part of the supporting documents of the Remedial Action Plan/Record of Decision (RAP/ROD) and that the RAP/ROD is subject to public review and comment.

4. A cancer risk of 3×10^{-5} roughly equates to a cleanup level of 1.8 mg/kg of PAHs when measured as benzo(a)pyrene (BaP). Please note that DTSC's screening level for BaP is 0.62 mg/kg and the appropriate place to establish cleanup goals that deviate from the screening levels is in a properly prepared Feasibility Study (FS) and RAP/ROD. Since we have not reviewed the feasibility of meeting the 0.62 mg/kg level, or the site-specific criteria that would allow us to deviate from the screening levels, it is inappropriate to propose cleanup levels at 1.8 mg/kg at this time.

   DTSC stresses that the RI report is not tasked to establish cleanup levels or remedial action objectives of a contaminated site. Furthermore, to set up cleanup levels requires public participation and public review and comments will be solicited. Please delete Section 6.4. and any other discussions concerning remedial action decisions. At a minimum, please rename Section 6.4 to be "Proposed Remedial Action Objectives" and insert the word "proposed" in front of any references pertaining to remedial action objectives.

5. Please discuss if sources other than the historic dredge and fill operation contribute to the contamination at OU-5. Some of these sources are:

   - Past use of waste materials as fill (Page 2-19 of the RI report states, "....historical photographs of early industrial operations show large piles of waste materials that may suggest heavily contaminated waste may have been directly used as fill").

   - Historic spills and/or releases (Figure 2-2 of the report shows a stained area near the present-day intersection of Mayport and Kollmann Cicles. Although the report asserts that the staining was already remediated, it is unclear how the remediation was carried out and if there is any remaining contamination).

   - Recent spills and/or releases (Page 3 of Appendix A states, "MTBE was identified ....at a depth of 2 to 7 ft bgs and .....at a depth of 7 to 10 ft bgs..... This chemical is a gasoline additive that has been used only in the relatively recent past..... Its presence at depth ....may be an indication that some portion of the petroleum-related contamination at OU-5 is not associated with historic industrial activities". Pages 2-17 and 4-119 of the report also include statements that suggest MTBE is from recent fuel spill onto the surface soils).

   - Possible leakage from the sewer systems underneath the site (Page 2-4 states, "In underlying portions of OU-5, there is an extensive system of sanitary abd storm water sewers...").

   - Possible contamination from long time ground maintenance (Page 2-17 states that pesticides including endosulfan, DDT and methoxychlor were detected in the soil).

6. Please discuss if volatile organic compounds (VOCs) are of concern for the OU-5 soil. The RI has revealed that at least nine VOCs present in the soil gas at OU-5 are not detected in the groundwater (see Table 5-1). This suggests that the soil itself, not the groundwater, is the source of these VOCs and that PAHs and metals may not be the only chemicals of potential concern (COPC) for OU-5 soil.

7. There were four out of 48 semivolatile organic compounds (SVOCs) detected in the previous groundwater investigation (see Appendix A). Furthermore, eventhough the original data are not available for review, it is possible that high detection limit may obscure the presence of some SVOCs (see Table A-2 of Appendix A) and that the total detects of SVOCs in groundwater could be higher than what have been reported. Please justify why the RI does not include SVOC analysis and SVOCs are not considered COPCs for the groundwater.

justify why the RI does not include SVOC analysis and SVOCs are not considered COPCs for the groundwater.

8. Please clarify what the background levels for PAHs and metals should be for the soils at OU-5 and how the background PAHs and metals are accounted in the baseline health risk assessment.

9. Please discuss the level of methane gas present in the groundwater and if this is a health concern to the residents and construction workers.

10. A detection limit for PAH as high as 146,000 ug/kg has been reported (page 4-21) and high detection limit remains a prevalent problem in this RI (e.g. Table 4-1). Using one half of the detection limit in the calculation of exposure point concentration can be misleading. Please discuss in a quantitative manner, if possible, the influence of high PAH detection limits on the estimated risk and the likelihood to have this problem resolved for future studies.

11. Some data entry errors are noted in this RI report. Examples include:

    - Appendix A, Table A-2, the minimum and maximum concentrations for 1,4-dichlorobenzene should be 0.2 and 13 ug/L, respectively, not the other way around.

    - Tables 4-5 and 4-6, the depth interval of "16-Dec" should be "12-16" instead.

    - Table 4-10, the depth interval of "07-May" should be "5-7" instead.

    Please make sure that data entry follows appropriate QA/QC procedures.

SPECIFIC COMMENTS

1. Page 1-1, third paragraph: The statement, "The Parcel 181 human health risk assessment includes groundwater contaminants but no soil gas contaminants" is confusing. Please clarify.

2. Page 1-7, first paragraph, second bullet: The statement, "Determine whether chemicals are present at concentrations that pose a potential chronic risk to ..... the environment...." is incorrect because the report does not contain ecological risk assessment.

3. Page 2-1, first paragraph states, "Based upon available data, the Navy has decided to perform remediation of soils in Parcel 182 and Parcel 183... Therefore, additional sampling assessment in Parcels 182 and

183 were not considered in this RI". Please clarify what "available data" are and what remediation the Navy has decided to perform to date.

4. Page 2-1, last paragraph states, "..... soil staining near the present-day intersection of Mayport and Kollmann Circles was reportedly remediated....". Please describe the remediation work, including any confirmation sampling results.

5. Page 2-7, Section 2.3: Section 2.3 *Summary of Previous Investigation Data* makes no mention of Appendix A *Summary of Historical Data.* Please make sure Section 2.3 makes references of Appendix A.

6. Page 2-19, third paragraph states, "In addition, historical photographs of early industrial operations show large piles of waste materials that may suggest heavily contaminated waste may have been directly used as fill". Please elaborate and include the photos.

7. Page 2-23, last paragraph states, "... concentrations exceeding a screening level established with CalEPA DTSC of 0.62 mg/kg BaP-equivalent concentrations for PAHs." Please indicate this level is equivalent to 1×10^{-5} cancer risk.

8. Section 7 of the RI report is missing from the copy received by the DTSC.

9. Table 4-4 contains no cyanide data. Please verify if cyanide data should be included in this table.

10. Table 5-1:

    - Ten SVOCs are listed as chemicals selected for evaluation. But Page 5-5 of the report states that all 16 PAHs are considered COPCs. Please explain the discrepancy.

    - Thirty-five VOCs are listed as chemicals selected for evaluation in groundwater media. Please make sure they are consistent with Section 4.2.

    - Twenty-one VOCs are listed as chemicals selected for evaluation in soil gas media. Please make sure they are consistent with Section 4.4.

11. Area 7 data for Table 5-22 are printed as the second page to Table 5-21. Please correct it.

12. Appendix A, Page 5: The last sentence of the page stops in mid-sentence and does not re-start until Page 20. This is potentially confusing. Please correct it.

13. Appendix B provides analysis pertinent to Section 4 (Nature and Extent of Contamin) and Section 5 (Baseline Risk Assessment) of the RI report. Please consider to incorporate contents of this appendix into the main text. At a minimum, please rename the appendix and cross reference it clearly in Sections 4 and 5 of the report. Currently the findings of Appendix B are largely left out from the main text and reference of the appendix is quiet sparing. The appendix itself, on the other hand, is named *Calculation of Benzo(a)pyrene-Equivalent Concentrations and Exposure Point Concentrations and Data Analysis* which is not necessarily telltale.

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Department of Toxic Substances Control

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
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Gray Davis
Governor

MEMORANDUM

TO: Marcia Liao
Hazardous Substances Engineer
Office of Military Facilities
Berkeley Office

FROM: Norman Shopay, RG
Hazardous Substances Engineering Geologist
Hazardous Waste Management Program
Geological Services Unit

CONCUR: Brian Lewis, CEG, CHG
Hazardous Substances Engineering Geologist Supervisor I
Hazardous Waste Management Program
Geological Services Unit

DATE: April 5, 2002

SUBJECT: Remedial Investigation Report, Operable Unit 5
Alameda Point, Alameda, California
Project No. 18040-201209-00

DOCUMENT REVIEWED

Operable Unit 5 Remedial Investigation Report, Alameda Point, Alameda California, dated December 21, 2001, prepared by Neptune and Company, Inc., IT Corporation and Environ.

INTRODUCTION

The Geological Services Unit (GSU) has completed our review of the above-referenced Remedial Investigation Report (RI Report) for Operable Unit 5 (OU 5) at Alameda Point, Alameda California. The objective of this review was to evaluate and provide technical comments on the content of the RI Report. GSU did not review portions of the RI Report related to human or ecological risk assessments. This memorandum provides our comments and recommendations. If you have any questions, please contact Norman Shopay at (510) 540-3943 or Brian Lewis at (916) 255-6532.

COMMENTS

1. As stated in Section 2.0, Operable Unit 5 is comprised of approximately 42 acres and is divided into three parcels (181, 182, 183).

The scope of the sampling activities was limited to Parcel 181, which is occupied by 51 multi-residential Coast Guard buildings. Therefore, the title of the RI Report should be modified to read *"Parcel 181, Operable Unit 5, Remedial Investigation Report".*

The Navy indicates Parcels 182 and 183 were excluded from the OU 5 investigation because the Navy intends to perform soil remediation in these parcels. The extent of soil, air and groundwater contamination for parcel 182 and 183 in OU 5 has not been fully investigated. Conducting soil remediation activities at parcels 182 and 183, as proposed by the Navy, without first identifying and defining the nature and extent of contamination is not recommended.

2. Because the RI Report contains interpretations, conclusions, and/or recommendations on geological and geochemical data, the reports must be signed by a qualified Geologist, registered in the State of California, or a professional Civil Engineer who takes responsibility for the technical content of the report. This is required by California State Law – Geologist and Geophysicist Act, Section 7835, 16 CCR 3003(f)(2) and CCR 3003(h), and the Professional Engineers Act, Chapter 7 of the Business and Professions Code. Technical reports and memoranda submitted to the Department of Toxic Substances Control (DTSC) that address hazardous waste investigations, and are available for public review, must adhere to the legal requirements of the Business and Professions Code. Reports signed by licensed professionals must indicate the license number of the professional who signs the documents. The Navy should submit the final RI Report signed and stamped by the licensed individuals who take responsibility for the technical content of the RI Report.

3. Section 1.1 states that *"the human health risk assessment includes groundwater contaminants but no soil gas contaminants".* No justification was provided that forms a bases to exclude soil gas contaminants from the health risk assessment. GSU recommends that DTSC Human and Ecological Risk Division (HERD) also review the RI Report.

4. Section 2.4 states that dredge fill material containing contaminants from the gas manufacturing plants and refinery as well as other unknown sediments from San Francisco Bay areas were the most likely source of contamination observed onsite. In addition large piles of waste materials may have been directly used as fill. Polynuclear aromatic hydrocarbon (PAH) and petroleum contamination were considered by the Navy to represent the anticipated contamination onsite. The GSU did not review the RI Workplan. However, considering the unknown nature of the source and/or sources for the contaminated fill material placed onsite, it would seem that additional laboratory analysis of soil and groundwater samples for other constituents such as Semi-Volatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs) would seem justified. The Navy should provide the justification and rationale for excluding these constituents.

5. Figures 4-7 through 4-10 show the distribution of composite benzo(a)pyrene (BaP) equivalent concentrations in four separate depth intervals. BaP concentrations are posted on each map; however, the data should also be contoured to provide a better visual representation of the distribution of BaP in each depth interval.

In addition, all other figures where only chemical concentrations are posted, the data should also be contoured to provide a better visual representation of the distribution of various chemicals in soil, air and groundwater.

6. Section 2.2.5 states that *"groundwater elevation data indicates that shallow groundwater flows to he northwest"*. No data was provided to support this conclusion. Appropriate groundwater gradient maps should be prepared and included in the RI Report. In addition, groundwater monitoring well construction information and copies of the boring and monitoring well completion logs should be included in the RI Report. A graphical presentation for each groundwater monitoring well should also be included which presents historical groundwater elevation data related to well screen interval and chemical concentrations detected in each groundwater monitoring well. Tabulated historical information should also be provided.

NTS/KB/166B/